

MEMORANDUM

DATE:	April 4 th , 2016
FROM:	Eric Lancaster
SUBJECT:	April Weekly Progress Report @ Gold King
TO:	Steven Way

Project: Gold King Interim Water Treatment Plant (IWTP)

Location: Gladstone, Colorado

Prepared for: Emergency Response Unit – US EPA Region 8

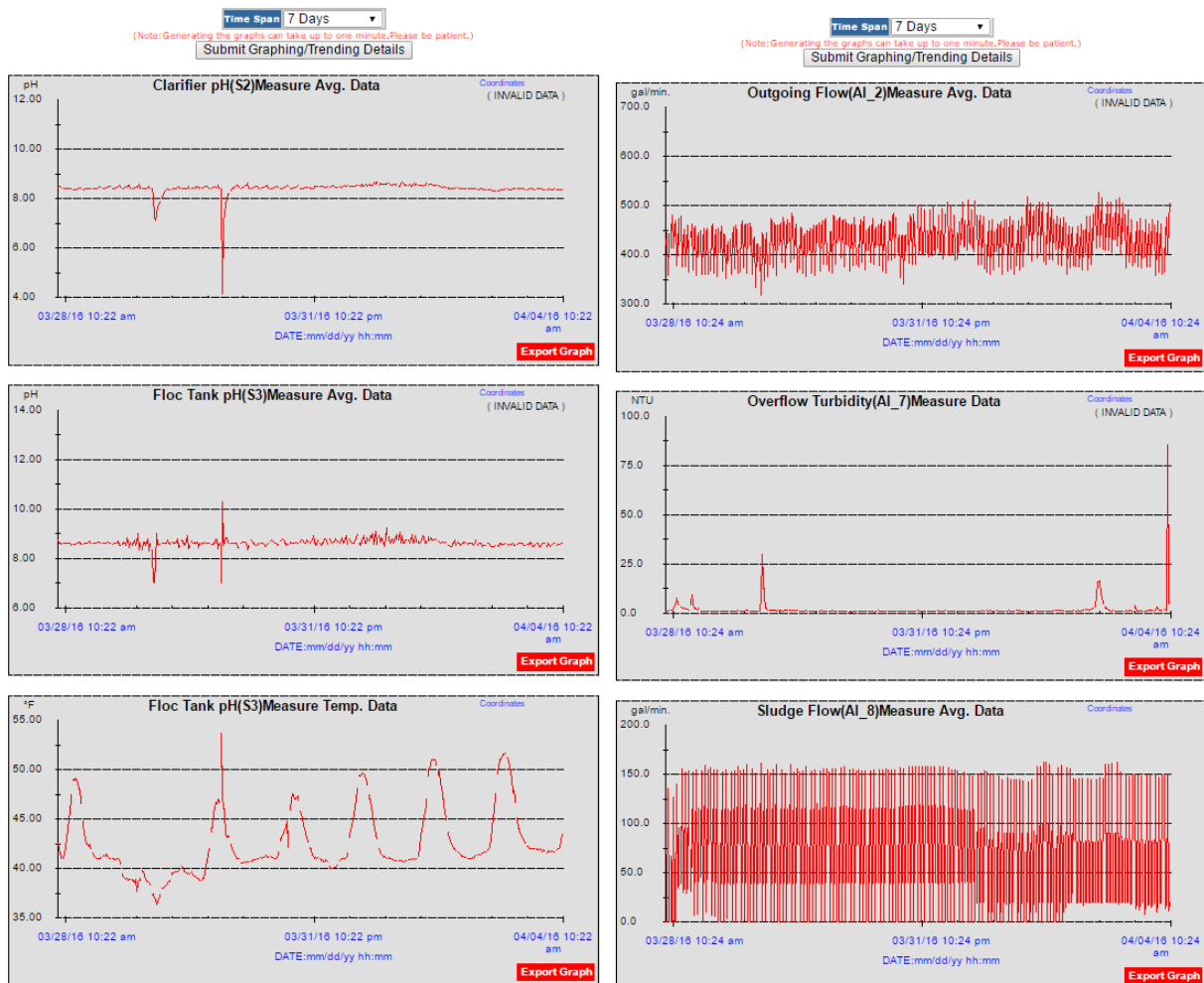
Reporting Period: Mar 28 – Apr 4

Report No.: 15

I. General Operations Summary:

IWTS Function/Upsets

- The following graphs provide trending information collected by data-logging equipment during the previous 7 days. These data-loggers collect control information from the Lime Circuit (left) and Flow Circuit (right) Programmable Logic Controllers (PLCs) at the Gold King IWTP. Over the reporting period (3/28/16 – 4/4/16 inclusive) Alexco treated 4.33 million gallons at an average flow rate of 430 gpm with all discharged treated water leaving the 12" HDPE pipeline.



- On 3/29/2016, Alexco experienced a brief plug on the lime slurry peristaltic pump's incoming line. The pH dropped to 7.3 before the plug was corrected and the system returned to normal.
- On 3/30/2016, the Alexco operator allowed the pH probe to soak for an extended time in acetic acid and 4.00 pH buffer to dissolve build-up on the probe. This is shown on the Clarifier graph.
- Note in the Outgoing Flow Measure Average Data the cyclical flow rates that are measured at the IWTP during warmer days, specifically 4/2 and 4/3. Alexco has recently experienced surges where the treatment plant's flow rates have increased as much as 70 gpm over 5 hours and TSS loading of the incoming flow has caused the turbidimeter to register higher averages (see spike on 4/3).

Communication System Function Status

- No issues – reliable operations during the reporting period.

Facility or System Related Work, including Repairs & Completions

- N/A

II. Identified Problems, Causes, and Solutions (Planned or Implemented)

- **Electrical Permit Closure** – Alexco has preliminarily scheduled Precision Electric to make electrical updates/changes at the IWTP. The modifications are based on an e-mail from Don Nowlin (inspector) dated 2/22/2016. This e-mail lists the following issues:
 - Cable tray shall be listed
 - Cords/cables installed in tray shall be listed for such use
 - Cords shall be installed with strain relief
 - Cords/cables shall be protected/secured between tray and equipment
- **Installation of Incoming Flow Meter** – Alexco will re-install the incoming flow meter on the 12" HDPE pipeline near the clarifier.
- **Discharge flow meter malfunction** – Alexco discovered that at flow rates above 950 gpm the discharge flow meter malfunctions. It is assumed that an excessive amount of entrained air is causing issues with the magmeter, and additional saddles/vents will be installed to mitigate the issue.
- **Stress Test** – Without accurate incoming and/or outgoing flow meters that can measure rates above 950 gpm, the IWTP stress test is delayed. This test will be rescheduled.

III. System Inspections – Specific elements inspected and finding

- N/A

IV. Site Status

Personnel and equipment onsite

- Alexco currently employs one Full-Time Employee (FTE) who lives in Silverton and over-sees operations at the Gold King IWTP. He is supported by local contract equipment operators and remote oversight from Denver.

Weather conditions

- Weather Underground Report for Silverton, CO (4/4/2016 – 4/13/2016)

10-Day Weather Forecast

